Group III	Claims 108-118, 124-134, and 139 drawn to method of making the glycodenrimer product.
Group IV	Claims 135-138 drawn to a method of using the gycodendrimer product for the *in vitro* treatment.

The Examiner stated that the inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature is the product of glycodendrimer. The Examiner stated that this element cannot be a special technical feature because the element is shown in the prior art. The Examiner stated that Cloninger (Curr. Opin. Chem. Biochem. (2002) 6: 742-748) teaches species of the glycodendrimer recited in the instant claims (page 742, 3rd Paragraph). Therefore, the Examiner continued, Groups I-IV do not share special technical feature with one another and as such, unity between the above Groups I-IV is broken.

In response to the Restriction Requirement Applicants provisionally elect Group I (claims 1, 48-73, 78-87, and 92-102) with traverse.

With regard to the Examiner's statement that the inventions are not so linked as to form a single inventive concept under PCT Rule 13.1, Applicants submit that the International Search Report as prepared by the ISA (European Patent Office), mailed 29th July 2003 (copies of Form PCT/ISA/220 and Form PCT/ISA/210 enclosed), makes no such assertion and that the Examiner is in error. Applicants respectfully draw the Examiner's attention to Form PCT/ISA/210 where the box (section 3) for "Unity of invention is lackin" is unchecked.

Applicants submit that if the ISA/EPO had determined that the inventions are not so linked as to form a single inventive concept under PCT Rule 13.1, the ISA would have stated as such at the time of preparing the ISR and checked the box marked "Unity of invention is lacking". In addition, Applicants draw the Examiner's attention to 37 C.F.R. § 1.499 that recites that the Examiner may require the applicant to elect the invention to which the claims shall be restricted if the Examiner finds that a national stage application lacks unity of invention under 37 C.F.R. § 1.475. Applicants note that 37 C.F.R. § 1.475 (Unity of Invention before the ISA, the IPEA, and during the national stage) refers to "(a)n international or a national stage application containing claims to *different* categories of invention" (see 37 C.F.R. § 1.475(b); Applicants' emphasis).

Applicants respectfully submit that the subject of originally filed claims 2-47 are drawn to a products and processes that utilizes the same subject product of claim 1, as recited in the

International Application, and therefore claims 1 and 48-139 as presented herein cannot be in different categories of invention. Applicants further submit that the Examiner erred in not stating which categories the claims of Group I, II, III, and Group IV encompass.

Therefore Applicants consider that the Examiner has erred by not complying with the provisions of 37 C.F.R. § 1.475 and the Examiner should not have applied the provisions of 37 C.F.R. § 1.499 so requesting election of an invention.

With regard to the Examiner's statement regarding the lack of same or corresponding special technical features of the inventions listed as Groups I, II, III, and IV, Applicants do not understand why the Examiner is using an element cited in Cloninger (2002) as a reason to support the assertion that claims 1 and 48-139 are not so linked as to form a single inventive concept under PCT Rule 13.1. Applicants note that the Cloninger reference was published online on the 12th October 2002 whereas the instant application claims priority from GB application No. 0209022.3, filed 19th April, 2002. Therefore the Cloninger (2002) reference is not prior art.

Applicants therefore submit that claims 1 and 48-139 form a single inventive concept under PCT Rule 13.1 and must therefore be examined together.

Species Election

The Examiner stated that the application contains claims directed to more that one species of the generic invention. The Examiner stated that the species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The Examiner stated that the species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features because they are distinct species which have different physical and chemical properties. In addition the Examiner stated that Cloninger teaches species (page 742, 3rd Paragraph).

In response to the Examiner's request, Applicants hereby provisionally elect the species of dendrimer generation 3.5-glucosamine (claim 78), with traverse. In addition, Applicants hereby provisionally elect the carbohydrate species of glucosamine 6-sulphate (claim 60), with traverse. In addition, Applicants hereby provisionally elect the disease species of severe sepsis (claim 61), with traverse.

Applicants respectfully submit that the Examiner's assertion that the species do not relate to a single general inventive concept under PCT Rule 13.1 in is error, as stated in the reasoned arguments above. In addition, as stated above, the Cloninger reference is not prior art. Applicants taught the claimed genus prior to the publication date of Cloninger as evidenced in the specification at page 3, lines 30-34, continued on page 4, and page 5, lines 1-29.

Applicants respectfully submit that the species recited in claims 49, 59, 60, and 78 are members of a single Markush group, repectively. Applicants respectfully draw the Examiner's attention to MPEP 2173.05(h) that states:

> *Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. The materials set forth in the Markush group ordinarily must belong to a recognized physical or chemical class or to an art-recognized class; when the Markush group occurs in a claim reciting a process or a combination (not a single compound), it is sufficient if the members of the group are disclosed in the specification to possess at least one property in common which is mainly responsible for their function in the claimed relationship, and it is clear from their very nature or from the prior art that all of them possess this property.*
>
> (Applicants' emphasis)

Applicants submit the claimed glycodendrimers belong to the art-recognized class of modified dendrimers, as recited in claims 29 and 78; furthermore, they posses at least one property in common, that property being "a class of polymeric compounds that can be distinguished from conventional linear polymers by their highly branched, but circular and symmetrical architecture (Figure 1a and Figure 1b)" and that "They have a molecular structure that can be much more precisely defined than is possible for linear polymers (Tomalia DA, Naylor AM, Goddard III WA. (1990)" (see, for example, Specification at page 1, lines 6-10).

Applicants further submit that the claimed carbohydrate moieties, as recited in claims 59 and 60, belong to the art-recognized class of carbohydrates and polysaccharides (see, for example, Specification at page 4, lines 23-26).

Applicants further submit that the claimed diseases set forth in claims 61-65, 69-74, 80-84, 98-107, and 119-123, belong to the art-recognized class of diseases associated with an

inflammatory response and include "the treatment of a disease in which chemokines and cytokines are increased" (see, for example, Specification at page 7, lines 24-25).

Applicants stated that "The compounds of the invention are particularly useful in the treatment of, for example, sepsis, severe sepsis, septic shock, the systemic inflammatory response associated with sepsis, rheumatological disease, eczema, psoriasis, contraction of tissues during wound healing, excessive scar formation during wound healing, transplant rejection, graft versus host disease and various conditions associated with angiogenesis in animals and man" (see Specification at page 7, lines 29-33).

Applicants also stated in the specification that "These new anionic glycodendrimers downregulate the immune system by acting first and foremost on the release of chemokines, most notably macrophage inflammatory protein (MIP) 1β, MIP-1α and interleukin 8 (IL-8). The compounds inhibit the release of pro-inflammatory chemokines which, in turn, inhibits the release of pro-inflammatory cytokines most notably tissue necrosis factor (TNF)-α, IL-1β and IL-6" (see Specification at page 7, lines 16-20). Applicants further stated that "the term 'sepsis syndrome' refers to sepsis plus impaired organ perfusion. The spectrum of clinical syndromes ranging from bacteremia to sepsis to severe sepsis to septic shock to refractory septic shock and to the systemic inflammatory response syndrome represents a continuum in which localised inflammation is at one end with a severe generalised inflammatory response leading to multi-organ failure being at the other end of the spectrum. In severe cases, death can occur within a few hours" (see, for example, Specification at page 8, lines 19-24).

MPEP 803 states:

> *If the search and examination of all the claims in an application can be made without serious burden, the examiner must examine them on the merits, even though they include claims to independent or distinct inventions.*

MPEP 803.02 states:

> *If the members of the Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the examiner must examine all the members of the Markush group in the claim on the merits, even though they may be directed to independent and distinct inventions. In such a case, the examiner will not follow the procedure described below and will not require provisional election of a single species* (Applicants' emphasis).

Applicant submits that the members of the group are sufficiently few in number and are so closely related that a search and examination of the claims can be made without a serious burden and that the claims must be examined on the merits.

Applicant respectfully affirms that proper Markush language is recited in claims 29 and 78 and that claims 29 and 78 conform to MPEP § 803.02.

Applicant respectfully affirms that proper Markush language is recited in claims 59 and 60 and that claims 59 and 60 conform to MPEP § 803.02.

Applicant respectfully affirms that proper Markush language is recited in claims 61-65, 69-74, 80-84, 98-107, and 119-123, and that claims 61-65, 69-74, 80-84, 98-107, and 119-123, conform to MPEP § 803.02.

The Examiner is respectfully reminded that, upon allowance of the claims to the above product, a second process using the product, i.e., the claims of Groups II, II, and IV, must be rejoined. See the Commissioner's Notice in the Official Gazette of March 26, 1996, entitled "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b)" which sets forth the rules, upon allowance of product claims, for rejoinder of process claims covering the same scope of products. Thus, Applicants respectfully request reconsideration of the Restriction Requirement and examination of Groups I, II, II, and IV, claims 1 and 48-139.